

Abstract

To transmit a digital signal over an optical fiber link, the digital signal is modulated onto an optical carrier using frequency shift keying modulation at a modulation index of $h < 0,5$. Under the impact of a non-linear transmission effect in the optical fiber, the use of a modulation index $h < 0,5$ leads to an increase in maximum permitted launch power of the optical signal, increased receiver sensitivity and an increased spectral efficiency.